

## INTERSECTION 54

### Crenshaw Boulevard/Pacific Coast Highway (SR-1) Improvement(s)

**Forecast Near-Term Conditions Intersection LOS Summary**

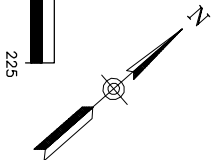
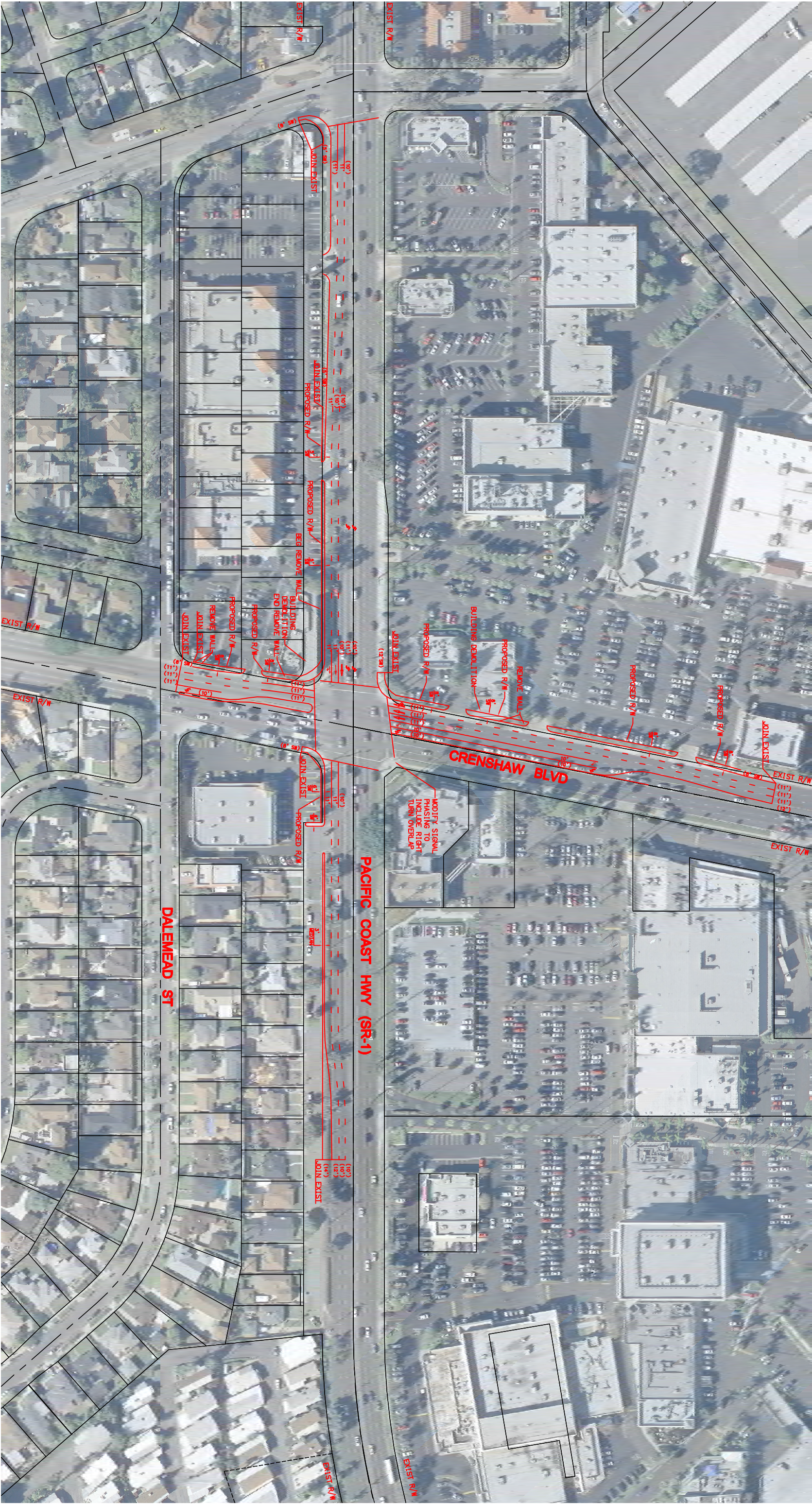
	Weekday AM Peak Hour	Weekday Mid-Day Peak Hour	Weekday PM Peak Hour	Weekend Mid-Day Peak Hour
Without Improvement(s)	<b>59.9 – E</b>	50.7 – D	<b>130.1 – F</b>	<b>91.1 – F</b>
With Improvement(s)	37.2 – D	41.5 – D	52.8 – D	52.6 – D

**Note:** Delay shown in seconds per vehicle; Deficient intersection operation shown in ***bold italics***.

#### **Recommended Improvements:**

- Modify the northbound Crenshaw Boulevard traffic signal phasing to include a northbound right-turn overlap, which will preclude U-turn movement from westbound to eastbound Pacific Coast Highway (SR-1).
- Widen the southbound Crenshaw Boulevard approach from one left-turn lane, two through lanes, and one shared through/right-turn lane to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane.
- Widen the eastbound Pacific Coast Highway (SR-1) approach from two left-turn lanes, one through lane, and one shared through/right-turn lane to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane.
- Implementation of the improvements identified at the Crenshaw Boulevard/Pacific Coast Highway (SR-1) intersection will require City acquisition of approximately 12-feet of right-of-way on the southbound Crenshaw Boulevard approach and departure to provide adequate alignment of southbound through lanes and approximately 12-feet of right-of-way on the eastbound Pacific Coast Highway (SR-1) approach and departure to provide adequate alignment of eastbound Pacific Coast Highway (SR-1) through lanes.





SCALE: 1" = 150'

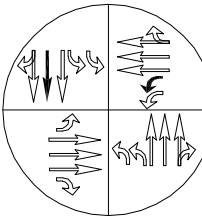
MITIGATIONS:

- SB - ADD LEFT TURN
- NB - MODIFY SIGNAL PHASING TO INCLUDE RIGHT TURN OVERLAP
- EB - ADD THRU LANE

CRENSHAW BLVD.

LEGEND:

- EXISTING LANE
- NEW IMPROVEMENT



PACIFIC COAST HWY (SR-1)

INTERSECTION 54				CITY OF TORRANCE			
CRENSHAW BLVD/PACIFIC COAST HWY (SR-1)				PUBLIC WORKS DEPARTMENT			
CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES				APPROVED:			
REV.	DATE	DESCRIPTION	BY	CHECKED	DATE	DESIGNED:	DATE
						D. ALVARADO	
						D. ALVARADO	
						PROJECT ENGINEER:	
						SCALE: AS SHOWN	SHEET 1 OF 1
						PLAN NO.	

**PBF**  
CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION

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**CITY OF TORRANCE CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES  
PRELIMINARY COST ESTIMATES**

**Location:** Intersection 54: Crenshaw Blvd/Pacific Coast Hwy

**Date:** 3/21/2008

**Mitigation:** Modify the northbound Crenshaw Boulevard traffic signal phasing to include a northbound right-turn overlap. Widen the southbound Crenshaw Boulevard approach to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane. Widen the eastbound Pacific Coast Highway (SR-1) approach to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lanes.

**Estimated by:** D. Alvarado

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$258,000
2	Clear & Grub	\$10,000.00 / AC	0.17	\$2,000
3	Remove Striping	\$10.00 / LF	2,400	\$24,000
4	Remove Curb & Gutter	\$15.00 / LF	1,990	\$30,000
5	Remove Median Curb	\$30.00 / LF	1,232	\$37,000
6	Remove PCC Sidewalk	\$3.50 / SF	10,850	\$38,000
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF	276	\$14,000
9	Remove Channel	\$15.00 / LF		\$0
10	Remove/Replace Chain Link Fence	\$50.00 / LF		\$0
11	Remove/Replace Wrought Iron Fence	\$10.00 / LF		\$0
12	Remove/Replace Survey Monument	\$800.00 / EA		\$0
13	Reconstruct Metal Beam Guard Rail	\$70.00 / LF		\$0
14	Remove & Relocate Tree	\$3,000.00 / EA	38	\$114,000
15	Sawcut	\$1.00 / LF	2,550	\$2,600
16	Relocate Street Light	\$7,500.00 / EA	10	\$75,000
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.75	\$225,000
18	Signal Phase Modification	\$10,000.00 / EA	1.0	\$10,000
19	Relocate Freeway Sign (2 post)	\$1,000.00 / EA	1	\$1,000
20	Relocate Sign (1 Post)	\$300.00 / EA	14	\$4,200
21	Reconstruct Overhead Sign	\$50,000.00 / EA		\$0
22	Relocate Call Box	\$2,000.00 / EA		\$0
23	Relocate Power Pole	\$25,000.00 / EA	5	\$125,000
24	Relocate Catch Basin	\$9,000.00 / EA	5	\$45,000
25	Relocate Fire Hydrant	\$2,500.00 / EA	6	\$15,000
26	Relocate Bus Shelter	\$2,000.00 / EA		\$0
27	Relocate Bus Bench	\$600.00 / EA		\$0
28	Relocate Monument Sign	\$5,000.00 / EA	5	\$25,000
29	Relocate Utility Boxes	\$500.00 / EA		\$0
30	Relocate Main Water Valve	\$10,000.00 / EA		\$0
31	Relocate Utility Vault	\$3,000.00 / EA	38	\$114,000
32	Adjust Manhole to Grade	\$1,000.00 / EA	6	\$6,000
33	Adjust Water Meter	\$2,000.00 / EA	4	\$8,000
34	Adjust Water Valve	\$500.00 / EA	3	\$1,500
35	Adjust Minor Above Ground Utilities	\$500.00 / EA	5	\$3,000
36	Modify Driveway	\$5,000.00 / EA	7	\$35,000
37	Earthwork	\$40.00 / CY	4,036	\$161,000
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF	21,794	\$305,000
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	2,400	\$9,600
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF	1,895	\$76,000
45	Construct Concrete Barrier	\$50.00 / LF		\$0
46	Construct Median Curb	\$20.00 / LF	1,432	\$29,000
47	Construct Median Concrete	\$10.00 / SF		\$0
48	Construct Median/Parkway Landscaping	\$10.00 / SF	3,205	\$32,000
49	Construct PCC Sidewalk	\$10.00 / SF	9,767	\$98,000
50	Construct Access Ramp	\$5,000.00 / EA	4	\$20,000
51	Construct Retaining Wall	\$50.00 / SF		\$0
52	Construct Storm Drain Main	\$100.00 / LF		\$0
53	Construct RCB	\$1,000.00 / LF		\$0
54	Construct Headwall	\$5,000.00 / EA		\$0
55	Construct Concrete V-Ditch	\$15.00 / LF		\$0
56	Construct Bridge Widening	\$500.00 / SF		\$0
57	Construct Wall	\$70.00 / LF	276	\$19,000
58	Building/Structure Demolition (1-Story Bldg)	\$10.00 / SF	14,530	\$145,000
59	Traffic Control (\$5,000 min)	8%	1	\$148,000
60	Drainage Items	10%	1	\$199,000
61	SWPPP Plan and Implementation	6%	1	\$130,194
	<b>CONSTRUCTION SUBTOTAL</b>			<b>\$2,584,094</b>
	Right-of-Way	100 / SF	7,667	\$767,000
	Right-of-Way Management	5 / %		\$38,000
	<b>RIGHT-OF-WAY SUBTOTAL</b>			<b>\$805,000</b>
	<b>TOTAL CONSTRUCTION &amp; RIGHT-OF-WAY COST</b>			<b>\$3,390,000</b>
	Preliminary Project Development (10% of total Construction/RW cost)			\$339,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$509,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$339,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$678,000
	<b>TOTAL PROJECT COSTS</b>			<b>\$5,255,000</b>